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10/583,337

06/19/2006

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EXAMINER

FITZGERALD, JOHN P

ART UNIT

PAPER NUMBER

2856

MAIL DATE

DELIVERY MODE

12/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/583,337 | Applicant(s) BIRNER ET AL. | |
| | Examiner JOHN FITZGERALD | Art Unit 2856 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 June 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/19/06; 12/28/07; 2/27/08</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawing Objections

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. The “processing device” (recited in claims 14, 17 and 19); the “fixing device” (recited in claim 23); the “stationary protractor” (as recited in claims 16-19) and the “additional elements” (recited in claim 20) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 13, 14 and 17-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is unclear as to how the "stationary force transducer" detects a "torque" on the connecting element. Similarly, how a "stationary protractor" provides a "signal" to a "processing device" since those elements are not even depicted in the instant Figures, so it unclear how a signal is generated and subsequently processed. From the instant Figures and Specification, there is no indication how these elements perform their recited functions, or as to their exact connections or coupling between the "force transducer" and the connecting element or the "stationary protractor" provides a "signal," thus failing to enable one of ordinary skill in the art to make and/or use the invention. Similar arguments are made for claims 14, 17, 19 and 20, since the "processing device" and other elements recited are not shown or their specific relationships between one another are not enabled by the instant specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 11, 12, 15 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Applicant's disclosed Prior Art document DE 847934. DE 847934 discloses all of the recited elements in an a device (Fig. 1) and method for monitoring a gas volume in a unit filled with a liquid having/providing an inflow line (8) and with an expansion vessel (1, 10) including a plurality of pivoting buoyant float bodies of different sizes (and thus densities) (3, 4) each disposed at defined vertical levels rotating about a plurality of mutually parallel shafts respectively offset from each other (as recited in claims 1 and 15); each shaft connected to each float body having a connecting element(s) (5, 6) thus spacing the float body from the shaft a predetermined distance (as recited in claim 12); detecting a pivoting movement of at least one of the float bodies (as recited in claim 21) wherein the shafts are fixed at defined vertical levels within the expansion vessel as determined on a basis of maximum gas volume to be detected to an inner surface of a top cover of the expansion vessel (as recited in claim 22) and mounting the shaft with a fixing device (7).

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Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 11, 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's disclosed Prior Art and US 3,529,472 to Riddel. Applicant disclosed Prior Art states that it is known to have expansion vessels having inflow/outflow lines (Buchholz relay) and that the German industry standard DIN 42566 stipulates that a warning message must be issued when a predetermined gas volume occurs within an expansion vessel/unit and that pressure measurement devices are known to be employed to determine this condition. However, Applicant's disclosed Prior Art does not teach the employment of a stationary shaft mounted in the expansion vessel; at least one buoyant body floating in the liquid, the body connected to the shaft and pivotally mounted with respect to the shaft via a connecting element having a predetermined spacing and detecting the pivoting movement of the floating body with respect to the shaft (as recited in claims 11, 12 and 21). Riddel discloses an apparatus and method (Figs. 1 and 2) of detecting liquid levels in a vessel (10) via a float (18) pivotally connected to a shaft (26) via a connecting element and the pivoting movement is detected and indicated by indicator (16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a pivoting float body system, as taught by Riddel, modifying the disclosed Prior Art devices/methods, thus providing a way of following continuous liquid level transitions and while consuming a minimum of power (col. 1, lines 35-52).

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8. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 847934 as applied to claims 11 and 12 above, and further in view of US 53,344 to Robinson. DE 847934 discloses a device and method for measuring a gas volume in a vessel having all of the elements stated previously. However, DE 847934 does not expressly disclose a stationary protractor to indicate an angle/inclination between the connecting element and the horizontal axis extending transversely to the shaft. Robinson discloses a liquid level device (Fig. 2) having a float (C) pivoting about a shaft via a connecting element (B) having a stationary protractor (E). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a stationary protractor indicating the liquid level in the vessel, as taught by Robinson, modifying the device disclosed by DE 847934, thus providing a simple and basic mechanical device for measuring the change in liquid level without the need of electrical input.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is invited to review PTO form 892 accompanying this Office Action listing Prior Art relevant to the instant invention cited by the Examiner.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fitzgerald whose telephone number is (571) 272-2843. The examiner can normally be reached on Monday-Friday from 7:00 AM to 3:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams, can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an

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application may be obtained from the Patent Application Information Retrieval (PAIR) system.

Status information for published applications may be obtained from either Private PAIR or

Public PAIR. Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

have questions on access to the Private PAIR system, contact the Electronic Business Center

(EBC) at 866-217-9197 (toll-free).

/John Fitzgerald/

Examiner, Art Unit 2856

11/24/08